SFUND RECORDS CTR
2274847

******* CONFIDENTIAL *******
******* PREDECISIONAL DOCUMENT *******

**SUMMARY SCORESHEET**
**FOR COMPUTING PROJECTED HRS SCORE**

**SITE NAME:** Cajon Landfill

**CITY, COUNTY:** San Bernardino, San Bernardino County

**EPA ID #:** CAD983603267 **EVALUATOR:** Dana D. Smith

**PROGRAM ACCOUNT #:** FCA1866PAA **DATE:** 10/1/91

Lat/Long: 34°10'50"N/117°20'48W **T/R/S:** 1N/5W/Sect 11

**THIS SCORESHEET IS FOR A:** PA X SSI ____ LSI ____

SIRe ____ PA Redo ____ Other (Specify) ____

**RCRA STATUS** (check all that apply):

___ Generator ___ Small Quantity Generator ___ Transporter ___ TSDF

X Not Listed in RCRA Database as of (date of printout) ___/___/___

**STATE SUPERFUND STATUS:**

___ BEP (date) ___/___/___ ___ WQARF (date) ___/___/___

X No State Superfund Status (date) ___/___/___

| | S pathway | $S^2$ pathway |
|---|---|---|
| Groundwater Migration Pathway Score ($S_{gw}$) | 100 | |
| Surface Water Migration Pathway Score ($S_{sw}$) | * | |
| Soil Exposure Pathway Score ($S_s$) | * | |
| Air Migration Pathway Score ($S_a$) | * | |
| $S^2_{gw} + S^2_{sw} + S^2_s + S^2_a$ | | |
| $(S^2_{gw} + S^2_{sw} + S^2_s + S^2_a)/4$ | | |
| $\sqrt{(S^2_{gw} + S^2_{sw} + S^2_s + S^2_a)/4}$ | | 50 |

*Pathways not assigned a score (explain):
* These pathways were qualitatively evaluated, but did not have a significant impact on the score.

>/hrs

21-May-1991

## GROUNDWATER MIGRATION PATHWAY SCORESHEET

**Factor Categories and Factors**

| Likelihood of Release | Maximum Value | Projected Score | Rationale | Data Qual. |
|---|---|---|---|---|
| 1. Observed Release | 550 | 550 | | |
| 2. Potential to Release | | | | |
| 2a. Containment | 10 | | | |
| 2b. Net Precipitation | 10 | | | |
| 2c. Depth to Aquifer | 5 | | | |
| 2d. Travel Time | 35 | | | |
| 2e. Potential to Release [Lines 2a x (2b+2c+2d)] | 500 | | | |
| 3. Likelihood of Release (Higher of lines 1 or 2e) | 550 | 550 | | |
| **Waste Characteristics** | | | | |
| 4. Toxicity/Mobility | a | 100 | | |
| 5. Hazardous Waste Quantity | a | 100 | | |
| 6. Waste Characteristics (lines 4 x 5, then use Table 2-7) | 100 | 10 | | |
| **Targets** | | | | |
| 7. Nearest Well | 50 | 50 | | |
| 8. Population[d] | | | | |
| 8a. Level I Concentrations | b | 60,000 | | |
| 8b. Level II Concentrations | b | | | |
| 8c. Potential Contamination | b | | | |
| 8d. Population (lines 8a+8b+8c) | b | | | |
| 9. Resources | 5 | | | |
| 10. Wellhead Protection Area | 20 | | | |
| 11. Targets (lines 7+8d+9+10) | b | 60,050 | | |
| **Likelihood of Release** | | | | |
| | | 330,275,000 | | |
| 12. Aquifer Score [(Lines 3 x 6 x 11)/82,500][c] | 100 | 4,003.33 | | |

**Groundwater Migration Pathway Score**

| | | | |
|---|---|---|---|
| 13. Pathway Score (Sgw), (highest value from line 12 for all aquifers evaluated) | 100 | 100 [c] | |

a Maximum value applies to waste characteristics category.
b Maximum value not applicable.
c Do not round to the nearest integer.
d Use additional tables.

/hrs Aquifer Evaluated _____ 21-May-1991

## GROUNDWATER PATHWAY CALCULATIONS

**8. Population**

**Actual Contamination**

| Well Identifier | Contaminant Detected | Concentration (Note Units) | Benchmark | (A) Apportioned Population Well Serves | (B) Level* Multip. | (A x B) |
|---|---|---|---|---|---|---|
| Colima | PCE | 24.3 | 5 | 2,000 | 10 | 20,000 |
| Darby | PCE | 28.5 | 5 | 2,000 | 10 | 20,000 |
| Gardena | PCE | 51.3 | 5 | 2,000 | 10 | 20,000 |
| | | | | Sum (AXB) Level I | | 60,000 |
| | | | | Sum (AXB) Level II | | |

* Multipliers
- Level I = 10
- Level II = 1

**Potential Contamination**

| Distance (miles) | Total Number of Wells Within Distance Ring | Total Population Served by Wells Within Distance Ring | Distance-Weighted Population Values "Other Than Karst" (Table 3-12)* (A) |
|---|---|---|---|
| 0 to 1/4 | | | |
| >1/4 to 1/2 | | | |
| >1/2 to 1 | | | |
| >1 to 2 | | | |
| >2 to 3 | | | |
| >3 to 4 | | | |
| | | Sum (A) | |

Potential contamination = $\frac{\text{Sum (A)}}{10}$ = _____

* For drinking water wells that draw from a karst aquifer, see the Distance-Weighted Population Values for "Karst" in Table 3-12.

/hrs Aquifer Evaluated _____ 21-May-1991

## RATIONALE

1. There has been a release of several volatile organic compounds from the Cajon Landfill to groundwater beneath and downgradient of the site. PCE, TCE, Freon 12, DCE, and vinyl chloride have been detected at levels that exceed EPA Maximum Contaminant Levels (MCLs) for drinking water or the EPA Ambient Water Quality Criteria in downgradient monitoring wells. A few of the contaminants were additionally detected in upgradient on-site monitoring wells; however, because the downgradient concentrations were at least three times greater than background, a release from the site can be documented.

2. The toxicity of PCE is 100 and the mobility is 1 since PCE has migrated to groundwater. Although vinyl chloride was detected in groundwater and has a toxicity of 10,000, PCE is of concern in the drinking water wells and maximizes the pathway score.

3. The landfill occupies 127 acres (5,532,120 square feet). 5,523,120/3,400 = 1,624.45; therefore the assigned value is 100. Additionally, actual contamination of drinking water wells may be attributable to the site.

4. There is Level I Contamination in three downgradient municipal wells. The contamination may be attributable, at least in part, to the Cajon Landfill site.

5. PCE has been detected in three downgradient municipal wells at levels which exceed the MCL of 5 µg/L. This contamination appears to be attributable, at least in part, to the Cajon Landfill site.

   San Bernardino Water Department serves 100,000 people with a 35-well blended system. 100,000/35 = 2,857.14 people served by each well.

   See scoresheet calculations.

6. Because the three wells at Level I produced a pathway score of 100, Level II and potential contamination population were no evaluated.